



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/090,471      | 03/04/2002  | Gerald A. Hutchinson | APTLTD.040CP2D      | 5405             |

20995 7590 07/07/2003

KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614

|          |
|----------|
| EXAMINER |
|----------|

MIGGINS, MICHAEL C

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1772

DATE MAILED: 07/07/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/090,471

Applicant(s)

HUTCHINSON ET AL.

Examiner

Michael C. Miggins

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-14, 16-20, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 6, 15 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Examiner's Comments

There are several chemical species recited in claims 1, 7-8, 10, 16, 18 and 22 which have been capitalized (i.e. Copolyester Barrier Materials, Phenoxy-type Thermoplastics etc.). The chemical species should be in lower-case lettering.

Dependent claims 8, 17 and 23 recite 1-10% polyethylene terephthalate but left out the phrase "by weight". It is believed that this is an oversight because applicant recites "by weight" in the specification (see instant specification, page 32, lines 25-30).

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7, 9-14, 16, 18-20 and 22 rejected under 35 U.S.C. 102(e) as being anticipated by Collete et al. (U.S. Patent No. 5,628,957).

With regard to independent claims 1, 10 and 18, Collete et al. teach a laminate (30, 32 and 34 from Fig. 2 and column 5, lines 31-44) comprising at least a first layer of polyethylene terephthalate (32 and 34 from Fig. 2 and column 5, lines 31-44) directly

adhered to a second layer of thermoplastic material (30 from Fig. 2 and column 5, lines 31-44), wherein said second layer of thermoplastic material is selected from the group consisting of copolyester barrier materials, phenoxy-type thermoplastics, polyamides, polyethylene naphthalate, polyethylene naphthalate copolymers, polyethylene naphthalate/polyethylene terephthalate blends, polyethylene terephthalate and combinations thereof (column 5, lines 31-44, column 6, line 1 through column 7, line 2), and said polyethylene terephthalate in the first layer has an isophthalic acid content of at least about 2% by weight (since Collete et al. teach that the range is from 0-10% by weight and more specifically 5% by weight see column 6, line 51 through column 7, line 2, see also claim 14, column 12, lines 35-37). Collete et al. also teach a preform or a bottle comprising a neck portion and a body portion (applies to independent claims 10 and 18) (column 5, lines 1-44 and Figs. 1-2 and 7).

With regard to dependant claims 2-5, 7, 9, 11-14, 16, 19-20 and 22, Collete et al. teach wherein the isophthalate acid content of the polyethylene terephthalate in the first layer is about 2 to 10, or 4 to 5, or 3 to 8, or 5 –10% by weight (since Collete et al. teach that the range is from 0-10% by weight and more specifically 5% by weight see column 6, line 51 through column 7, line 2, see also claim 14, column 12, lines 35-37), wherein the second layer of thermoplastic material is a copolyester barrier material (since PEN/PET are copolyester barrier materials see column 5, lines 31-44, column 6, line 1 through column 7, line 2); wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate (column 10, lines 49-67), wherein the body portion of the perform

comprises a wall portion and an end cap and the first layer is thinner in the end cap than in the wall portion, wherein the first layer faces the perform interior (column 5, lines 1-44 and Figs. 1-2 and 7).

3. Claims 1-5 are rejected under 35 U.S.C. 102(a) as being anticipated by Hiraoka et al. (WO 97/31050, translation of English abstract provided herein).

With regards to independent claim 1, Hiraoka et al. teach a laminate comprising at least a first layer of polyethylene terephthalate directly adhered to a second layer of thermoplastic material (since Hiraoka et al. teach PET bonded to polyamide in a bottle, wherein said second layer of thermoplastic material is selected from the group consisting of copolyester barrier materials, phenoxy-type thermoplastics, polyamides, polyethylene naphthalate, polyethylene naphthalate copolymers, polyethylene naphthalate/polyethylene terephthalate blends, polyethylene terephthalate and combinations thereof (Hiraoka et al. teach the use of polyamide), and said polyethylene terephthalate in the first layer has an isophthalic acid content of at least about 2% by weight (since Hiraoka et al. teach the range to be from 1-15% by weight see translation of English abstract provided herein).

With regard to dependant claims 2-5, Hiraoka et al. teach wherein the isophthalate acid content of the polyethylene terephthalate in the first layer is about 2 to 10, or 4 to 5, or 3 to 8, or 5 –10% by weight (since Hiraoka et al. teach the range to be from 1-15% by weight see translation of English abstract provided herein).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collete et al. (U.S. Patent No. 5,628,957) in view of Hiraoka et al. (WO 97/31050, translation of English abstract provided herein).

With regard to dependent claims 8, 17 and 23, Collete et al. teach that the second layer can comprise from 1-10% polyethylene terephthalate (see claim 5, column 11, line 66 through column 12, line 3).

Collete et al. disclose applicant's invention substantially as claimed. However, Collete et al. fail to disclose that the second layer contains polyamide.

Hiraoka et al. teach a second layer which contains polyamide (see English translation of abstract provided herein) (applies to instant claims 8, 17 and 23) bonded to a first layer comprising polyester in a bottle for the purpose of providing good gas barrier properties, transparency and heat resistance.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided polyamide in the second layer of Collete et al. in order to provide good gas barrier properties, transparency and heat resistance as taught or suggested by Hiraoka et al..

6. Claims 7-9, 10-14, 16-17, 18-20 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collete et al. (U.S. Patent No. 5,628,957) in view of Hiraoka et al. (WO 97/31050, translation of English abstract provided herein).

With regard to claims 8, 17 and 22, Hiraoka et al. teach a second layer which contains polyamide (see English translation of abstract provided herein) bonded to a first layer comprising polyester in a bottle. With regard to dependant claims 13-14 and 19-20, Hiraoka et al. teach wherein the isophthalate acid content of the polyethylene terephthalate in the first layer is about 2 to 10, or 4 to 5% by weight (since Hiraoka et al. teach the range to be from 1-15% by weight see translation of English abstract provided herein).

Hiraoka et al. disclose applicant's claimed invention as claimed. However, Hiraoka et al. fail to disclose a preform or a bottle comprising a neck portion and a body portion (claims 10 and 18).

With regard to claims 7-9, 10-12, 16-17, 18 and 22-23, Hiraoka et al. fail to teach wherein the second layer of thermoplastic material is a copolyester barrier material, wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate, wherein the body portion of the perform comprises a wall portion and an end cap and the first layer is thinner in the end cap than in the wall portion, wherein the first layer faces the perform interior and wherein the second layer can comprise from 1-10% polyethylene terephthalate.

With regard to independent claims 10 and 18, Collette et al. teach a preform or a bottle comprising a neck portion and a body portion (column 5, lines 1-44 and Figs. 1-2 and 7).

With regard to claims 7-9, 10-12, 16-17, 18 and 22-23, Collete et al. teach wherein the second layer of thermoplastic material is a copolyester barrier material (since PEN/PET are copolyester barrier materials see column 5, lines 31-44, column 6, line 1 through column 7, line 2), wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate (column 10, lines 49-67), wherein the body portion of the perform comprises a wall portion and an end cap and the first layer is thinner in the end cap than in the wall portion, wherein the first layer faces the perform interior (column 5, lines 1-44 and Figs. 1-2 and 7) and wherein the second layer can comprise from 1-10% polyethylene terephthalate (see claim 5, column 11, line 66 through column 12, line 3) in a bottle or preform for the purpose of providing enhanced thermal and barrier properties.

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided the laminate of Hiraoka et al. in the form of a bottle or preform comprising a neck portion and a body portion wherein the second layer of thermoplastic material is a copolyester barrier material, wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate, wherein the body portion of the perform comprises a wall portion and an end cap and the first layer is thinner in the end cap than



Art Unit: 1772

in the wall portion, wherein the first layer faces the perform interior and wherein the second layer can comprise from 1-10% polyethylene terephthalate in order to provide enhanced thermal and barrier properties as taught or suggested by Collette et al..

***Allowable Subject Matter***

7. Claims 6, 15 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The primary reason for an indication of allowable subject matter is applicant's recited second layer wherein the second layer of thermoplastic material is poly(hydroxyamino ether) as recited in claims 6, 15 and 21 which is not taught by the prior art. The closest prior art, Collette et al. and Hiraoka et al. disclose second layers containing polyester and polyamide. However, neither reference teaches that the second layer of thermoplastic material is poly(hydroxyamino ether) as recited in claims 6, 15 and 21. Furthermore, one of ordinary skill in the art would not have been motivated to provide poly(hydroxyamino ether) in the second layer to arrive at applicant's claimed invention.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hutchinson (U.S. Patent No. 6,391,408 B1) and Hutchinson

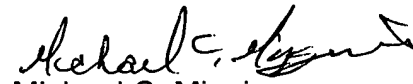
Art Unit: 1772

(U.S. Patent No. 6,312,641 B1) are cited as applicant's previous patents for related subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Michael C. Miggins  
Examiner  
Art Unit 1772

MCM  
June 30, 2003